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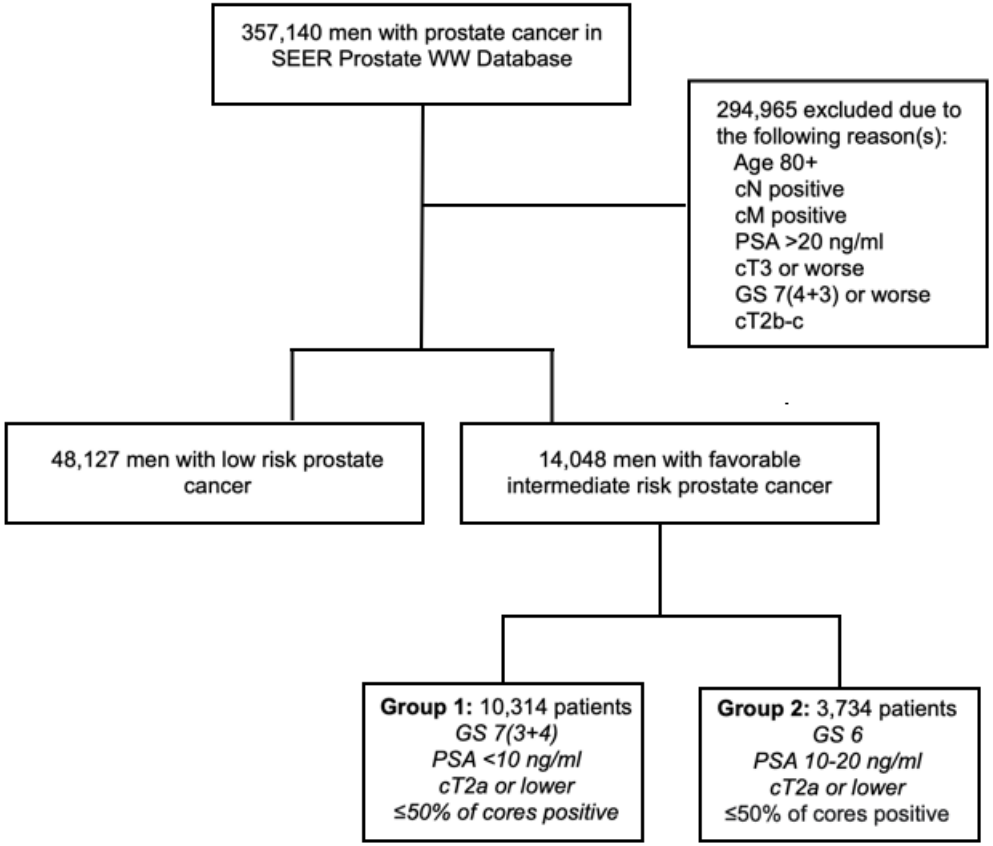
APPENDIX

Supplementary Figure 1. Study flow chart.



Supplementary Table 1. Definitive therapy by NCCN risk group and number of biopsy cores sampled			
Number of cores sampled	**Low-risk**	**GG2 FIR**	**PSA 10–20 FIR**
Standard (10–12)	9145/20 266 (45.1%)	5147/6848 (75.2%)	1042/2243 (46.5%)
Extended (13–20)	2799/7122 (39.3%)	1751/2430 (72.1%)	416/969 (42.9%)
Super-extended (21+)	418/1023 (40.9%)	235/330 (71.2%)	60/155 (38.7%)

FIR: favorable intermediate risk; GG: grade group; NCCN: National Comprehensive Cancer Network; PSA: prostate-specific antigen.

Supplementary Table 2. Predictors of definitive intervention (radical prostatectomy or radiotherapy) in active surveillance patients on multivariable logistic regression analyses*						
	Low-risk		**GG2 FIR**		**PSA 10-20 FIR**	
Variable	**OR (95% CI)**	**p**	**OR (95% CI)**	**p**	**OR (95% CI)**	**p**
Number of biopsy cores examined at diagnosis (reference:10–12 cores)						
13–18 cores	0.88 (0.83–0.95)	**<0.001**	0.83 (0.73–0.93)	**0.002**	0.86 (0.71–1.03)	0.10
19+ cores	1.03 (0.91–1.18)	0.63	0.86 (0.69–1.08)	0.18	0.78 (0.57–1.06)	0.10
Number of biopsy cores examined at diagnosis (reference: 10–14 cores)						

15–22 cores	0.89 (0.83–0.95)	**0.004**	0.82 (0.73–0.92)	**<0.001**	0.89 (0.74–1.05)	0.17
23+ cores	1.18 (0.99–1.42)	0.067	0.95 (0.70–1.31)	0.76	0.67 (0.43–1.03)	0.069

*Multivariable analysis adjusted for year of diagnosis, age, race, marital status, insurance status, socioeconomic status, PSA at diagnosis, clinical T stage, and percent positive cores positive. CI: confidence interval; FIR: favorable intermediate risk; GG: grade group; OR: odds ratio; PSA: prostate-specific antigen.

Supplementary Table 3. Pathologic Gleason grade group (GG) score among patients undergoing a radical prostatectomy			
Gleason GG	Low-risk (n=1968)	GG2 FIR (n=1042)	PSA 10–20 FIR (n=238)
GG1	1558	227	168
GG2	352	677	45
GG3	44	113	12
GG4	14	13	2
GG5	0	12	1

FIR: favorable intermediate risk; PSA: prostate-specific antigen.

Supplementary Table 4. Predictors of upgrading on radical prostatectomy specimens among active surveillance patients opting for radical prostatectomy on multivariable analysis (sensitivity analysis)						
	Low risk*		**GG2 FIR***		**PSA 10-20 FIR****	
Variable	**OR (95% CI)**	**p**	**OR (95% CI)**	**p**	**OR (95% CI)**	**p**
Number of biopsy cores examined at diagnosis (reference: 10–12 cores)						
13–18 cores	0.92 (0.68–1.24)	0.72	1.12 (0.70–1.79)	0.53	0.66 (0.37–1.20)	0.11
19+ cores	0.50 (0.22–1.14)	0.055	0.69 (0.49– 0.97)	**0.029**	0.64 (0.30–1.30)	0.15

Number of biopsy cores examined at diagnosis (reference: 10–12 cores)						
13–22 cores	0.98 (0.73–1.32)	0.83	1.10 (0.76–1.58)	0.48	0.73 (0.46–1.16)	0.18
23+ cores	0.49 (0.24–0.98)	**0.036**	0.73 (0.54– 0.98)	**0.044**	0.56 (0.31–1.04)	0.08

*Multivariable analysis adjusted for age, race, marital status, insurance status, socioeconomic status, PSA at diagnosis, clinical T stage, and percent positive cores positive. ***Multivariable analysis adjusted for age, race, socioeconomic status, PSA at diagnosis, and percent positive cores positive. CI: confidence interval; GG: grade group; FIR: favorable intermediate risk; OR: odds ratio; PSA: prostate-specific antigen.

Supplementary Table 5. Predictors of downgrading to GG1 disease on radical prostatectomy for GG2 FIR active surveillance patients opting for radical prostatectomy on multivariable analysis (n=226 events)		
Variable	**OR (95% CI)**	**p**
Number of biopsy cores examined at diagnosis (reference: 10–12 cores)		
13–20 cores	0.72 (0.49–1.06)	0.11
21+ cores	0.47 (0.11–1.47)	0.24
Sociodemographic		
Age at diagnosis (reference: 50–59)		
<50	1.27 (0.64–2.69)	0.50
60–69	0.87 (0.44–1.83)	0.70
70–79	1.37 (0.60–3.23)	0.46
Race (reference: Caucasian)		
African American	2.22 (1.32–3.69)	**0.002**
Hispanic	0.92 (0.48–1.68)	0.80

Asian/Pacific Islander/American Indian/Alaska Native	0.74 (0.31–1.58)	0.46
Marital status (reference: married)		
Not married	0.60 (0.36–0.95)	**0.034**
Insurance status (Reference: Insured)		
Medicaid	1.74 (0.52–5.11)	0.33
Uninsured	0.99 (0.62–1.54)	0.96
Socioeconomic status (reference: lowest)		
2	0.79 (0.46–1.35)	0.39
3	0.72 (0.44–1.20)	0.21
4 (highest)	1.16 (0.73–1.87)	0.52
Oncologic		
PSA at diagnosis		
4–10 ng/ml (vs. 0–3.99 ng/ml)	0.98 (0.90–1.07)	0.62
Clinical stage (reference cT1)		
cT2a	0.95 (0.85–1.06)	0.50
Percent positive core involvement	0.98 (0.96–0.99)	**0.010**

CI: confidence interval; GG: grade group; FIR: favorable intermediate risk; OR: odds ratio; PSA: prostate-specific antigen.

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STROBE statement—checklist of items that should be included in reports of observational studies

	Item no.	**Recommendation**	**Page no.**
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	1
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	4,5
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	7
Objectives	3	State specific objectives, including any prespecified hypotheses	7,8
Methods			
Study design	4	Present key elements of study design early in the paper	8
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	8
Participants	6	(*a*) *Cohort study*—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up *Case-control study*—Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls *Cross-sectional study*—Give the eligibility criteria, and the sources and methods of selection of participants	8
		(*b*) *Cohort study*—For matched studies, give matching criteria and number of exposed and unexposed *Case-control study*—For matched studies, give matching criteria and the number of controls per case	
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	9,10

Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	8–10
Bias	9	Describe any efforts to address potential sources of bias	11
Study size	10	Explain how the study size was arrived at	8
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	9–11
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	11
		(*b*) Describe any methods used to examine subgroups and interactions	11
		(*c*) Explain how missing data were addressed	N/A
		(*d*) *Cohort study*—If applicable, explain how loss to follow-up was addressed *Case-control study*—If applicable, explain how matching of cases and controls was addressed *Cross-sectional study*—If applicable, describe analytical methods taking account of sampling strategy	N/A
		(*e*) Describe any sensitivity analyses	10
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	Supplementary figure
		(b) Give reasons for non-participation at each stage	Supplementary figure
		(c) Consider use of a flow diagram	Supplementary figure
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	12
		(b) Indicate number of participants with missing data for each variable of interest	Table 1
		(c) *Cohort study*—Summarise follow-up time (eg, average and total amount)	14

Outcome data	15*	*Cohort study*—Report numbers of outcome events or summary measures over time	12–14
		Case-control study—Report numbers in each exposure category, or summary measures of exposure	
		Cross-sectional study—Report numbers of outcome events or summary measures	N/A
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (e.g., 95% confidence interval). Make clear which confounders were adjusted for and why they were included	12–14
		(*b*) Report category boundaries when continuous variables were categorized	12–14
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	N/A
Other analyses	17	Report other analyses done—e.g., analyses of subgroups and interactions, and sensitivity analyses	12–14
Key results	18	Summarise key results with reference to study objectives	15
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	16,17
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	15–17
Generalisability	21	Discuss the generalisability (external validity) of the study results	15–17
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	2

*Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies. **Note:** An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.

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